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Integration into global production networks and path-dependence: the footwear industry in post-socialist Hungary

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Abstract: Labour-intensive industries suffered a spectacular loss of their weight in the industrial structure of post-socialist Hungary having an intermediary position between the Western economies controlling the global industrial value chains and the Eastern low-cost production locations. This degradation process can be particularly witnessed in the case of the footwear industry which experienced two large waves of decline, one during the change of regime in 1989 and the other after the turn of the millennium. In the background of the changing performance of the footwear sector there were also significant structural changes during both periods of decline. Integration into global production networks by subcontracting or as subsidiaries of foreign enterprises, process and functional upgrading tendencies within the existing value chains as well as the establishment of Hungary's own brand products for niche markets are the most important issues in this respect. This study is built upon two key questions: (1) What kind of dynamics does the Hungarian footwear industry show during its integration into the (global) production networks of the sector? (2) How are global production networks becoming embedded into the local economy; and to what extent can the transformation of the Hungarian footwear industry be considered as a path- and place-dependent process? The empirical research is based on semi-structured and in-depth interviews carried out in the last three years with representatives of enterprises from eleven industrial locations — comprising about 35 % of the total sectoral employment — in addition to sector-relevant national and local institutions.

Keywords: economic geography; regional development; spatial competition.

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1 Introduction

In the mid-1980s Hungary was ranked in the middle among European footwear manufacturing countries. The industry employing 35-40 thousand people produced annually more than 45 million pairs of shoes. However, the footwear industry experienced two major waves of degradation in the last 25 years. The transformation crisis took place after the change of regime and was followed by temporary stability/growth in the second half of the 1990s; then, after the turn of the millennium a shocking decline occurred in the sector. Presently there are 6-7 thousand employees in the footwear industry and they produce more than 10 million pairs of shoes annually, which makes up one fifth of the mid-1980s volume. The resulting loss of production has been so large that the footwear industry has now become an insignificant business sector. Given its deterioration one might raise the question: under which conditions might this industry of remarkable traditions be sustained and whether it can once again assume a viable place as a firm economic basis within its regions. The situation of this sector in Hungary is quite similar to other East-Central European countries in terms of its international integration, its intermediary position between developed and developing countries in terms of production costs, and its sector-specific traditions as well (Roukova et al 2008, Crestanello / Tattara 2011). However, the market size of Hungary ("consumption" of 24 million pairs of shoes in 2015) considerably lags behind compared to the figures of Poland (110 million pairs), Romania (53 million pairs) or the Czech Republic (41 million pairs) (World Footwear Yearbook 2015). The economic opening triggered by the change of regime took place in Hungary at a faster pace than in all these other countries (Barta 2002). But, despite this fact, Hungary is among the locations characterized by higher production costs in the region, the effects of which are indicated by the relocation of several footwear manufacturers to other countries within the region driven by cost-efficiency reasons.

In the last decade several empirical studies focused on the spatiality of the footwear industry and other labour-intensive industries as well as —directly or indirect-

ly— on the role of East-Central Europe in these economic segments. (To quote some: Bertram 2005, Crestanello/Tattara 2011, Cutrini 2011, Dicken 2011, Hanzl-Weiss 2004, Roukova et al 2008, Schamp 2005, Schmitz 2006, Scott 2006.) These studies dealt with the important role of the region as a footwear industry site after the change of regime and also investigated the relocation of production from one country to another. By focusing on a single region or a wider range of industrial actors they examined the background and methods of the connection to the international division of labour and the local effects of the participation and made partial comparisons between the countries of the region. However, in Hungary less scientific attention was paid towards the post-socialist restructuring of the footwear industry and labour-intensive industries (published mostly in Hungarian Cseh et al 2002, Laki 2005, Molnár 2013, Molnár/Lengyel 2015, about textile and clothing industry Hamar 2006).

This present study investigates the introduction and explanation of the structural changes within the Hungarian footwear industry representing the post-socialist development of labour-intensive industries. The theoretical framework of the research is on one hand the theory of global production networks, on the other hand the concept of path-dependence borrowed from the context of evolutionary economic geography. The application of the former approach is justified by the highly internationalized and significantly export-oriented features of the industry. One might assume that the theory attempting to reveal the ways of joining these networks could be a useful tool to understand the local development of the footwear industry. Taking into account the aspects of path-dependence is justified by the literature on the post-socialist economic transformation in the context of labour-intensive industries (for example Roukova et al 2008, Smith et al 2014) and the specialities of the Hungarian change of regime as well. Contrary to the rapid transformation of the political institutional system implemented at the end of the 1980s, several elements of the economic change of regime can be traced back to the new economic mechanism launched in 1968 aiming to reform the rigid planned economy (Kornai 1995, 1996). In contrast with the radical changes, the gradualness experienced in the Hungarian economic change of regime serves as an expressive argument for examining path-dependence / path plasticity.

The theory-based empirical study using the results of semi-structured interviews attempts to interpret the transformation of the footwear industry within the above mentioned theoretical-conceptual frameworks. Our process was as follows: (1) Firstly, information was collected from the representatives of the leading domestic companies of the industry (foreign subsidiaries, Hungarian suppliers of foreign companies and Hungarian companies producing their own products for domestic and foreign markets), as well as the representatives of the Hungarian Association of Leather and Footwear Industry comprising these actors. (2) Secondly, the examination was directly focused on one of the most important locations in the context of the industry, the region of Martfű, and the scope of the study was also extended to supplying industries and the institutional agents related to the sector (chambers of commerce, education, trade unions, local governments). The results of this two-phased research are presented in two different sections: (1) In the first part a description of the circumstances surrounding the integration of the Hungarian footwear industry into global production networks as well as the changes of its role within these networks is given. (2) The second part deals with the local embedment of global production networks and the interrelationships between these systems and local endowments / institutional agents. In both cases findings acquired from the most deeply studied Martfű region served as a starting point, which were complemented by observations collected from other regions of Hungary in order to be able to make general statements. The enterprises involved in the primary research comprise about 35 % of the employees of the Hungarian footwear industry.

2 Theoretical background

2.1 Global production networks: interpreting the restructuring of footwear industry

Global production networks are mainly globally organized systems of interconnected corporate and institutional functions and actions through which the production, distribution and consumption of goods and services are realized. On the one hand, global production networks are existing economic structures within the world of the so-called second international division of labour. According to a UNCTAD estimation 80 % of the international trade is conducted through these networks. Some consider them as the backbone of global economy. On the other hand, the global production network is a theoretical construction rooted in the former value chain studies and the research of Manchester School of Economic Geography. It aims at explaining the spatially uneven development of different economic activities and through them explaining the spatial economic disparities (Yeung/Coe 2015).

The revised "2.0" version of the GPN theory traces back the emergence and development of global production networks to three main drivers (cost-capability ratio, market development and financial discipline) generally acting within capitalist economic conditions. Within environments posing different scales of risks (economic, regulatory, environmental, products and labour) the drivers can generate four types of corporate strategies (intrafirm coordination, interfirm control, interfirm partnership, extra firm bargaining) (Yeung/Coe 2015). These strategies define how companies and their regions integrate into networks which determine their chances and profitability within the system. Since the theory explains the development of global production networks with the mixture of corporate strategies, it assumes significant diversity within the same industry or region (Gereffi et al 2005, Yeung/Coe 2015).

The GPN concept exceeds the former approach of global value chains (GVC) by involving institutional agents (supranational organizations, governmental agents, industrial lobby and interest groups, trade unions, civil sphere) into the explanation of how the global economy is organized. It also emphasizes—not only in terms of institutions—the explanatory factors of regional endowments (cooperating companies, potential suppliers, qualified human resources, special infrastructure). Recognizing the reasonability of the organization of global production networks—similar to the previous theory of global value chains—it systematically intends to reveal the cause-effect relationships and to formulate generally applicable concepts. Furthermore, by emphasizing the temporal variability of explaining factors it creates a theoretical framework to study the temporal development of global production networks (Coe et al 2004, Gereffi et al 2005, Coe/Hess 2011, Yeung/Coe 2015).

It is of major importance to consider the idea of GPN theory (and its preceding approaches) as it relates the way of connecting to global production networks to the profitability of certain economic activities, considers their long-term perspectives and finally gives the relative developmental positions of the given regions. This is the reason why significant emphasis was put on the study of dimensions and circumstances of upgrading—meaning better position and higher value-added local economic activities—from the very beginning (Humphrey/Schmitz 2002, Kaplinsky 2004, Gereffi et al 2005, Schamp 2008). Upgrading can be observed in the increasing efficiency of production processes, the shifting of product range towards higher quality products, the expansion of functions within value chains and increasing appreciation of knowledge-intensive elements as well as the turning of industrial actors towards new economic segments (Humphrey/Schmitz 2002).

Within the theoretical framework of GPN 2.0 upgrading is a tool to balance out the increasing costs. In global competition, for the actors forced to decrease cost-capability ratio, strategic alternatives can be (1) decreasing production costs (outsourcing) or (2) increasing capabilities to a higher level (upgrading). This also means that the increasing costs do not necessarily result in the exclusion from global production networks if it is balanced by the increasing capabilities (Yeung/Coe 2015). The reorganisation of activities based on market and financial conditions along with risks are realized within the frameworks of different value chain management mechanisms (intrafirm coordination, interfirm control or partnership) and they are affected by the bargaining mechanisms between the corporations and institutional agents (government, trade unions etc.). These intra and extrafirm relations fundamentally influence the upgrading possibilities of the individual agents (and their regions as well) and the features of their potential positions within the global production networks (Yeung/Coe 2015).

2.2 The role of path-dependence in the explanation of the post-socialist transformation of the footwear industry

Path-dependence is one of the key concepts of evolutionary economic geography integrating the ideas of evolutionary economics into spatial studies emphasizing the importance of long-term historical economic development. The concept assesses the effects and impacts of past events and decisions on present and future economic processes (Martin/Sunley 2010). Mechanisms of path-dependence are described in three forms by the relevant literature. Path-dependence may refer to technological lock-in; in this case a chain of past events results in a specific technological trajectory which does not allow for leaving the established path despite the recently emerging alternative technologies. However, path-dependence might be strengthened by agglomeration effects and positive externalities; increasing returns generate positive feedback effects which reinforce the previously established developmental paths. Nevertheless, institutional hysteresis also fosters path-dependence; the concept refers to the temporal self-reproducing features of formal and informal institutions, social structure and cultural characteristics, which help the stabilization and social embedment of certain activities (Martin/Sunley 2006).

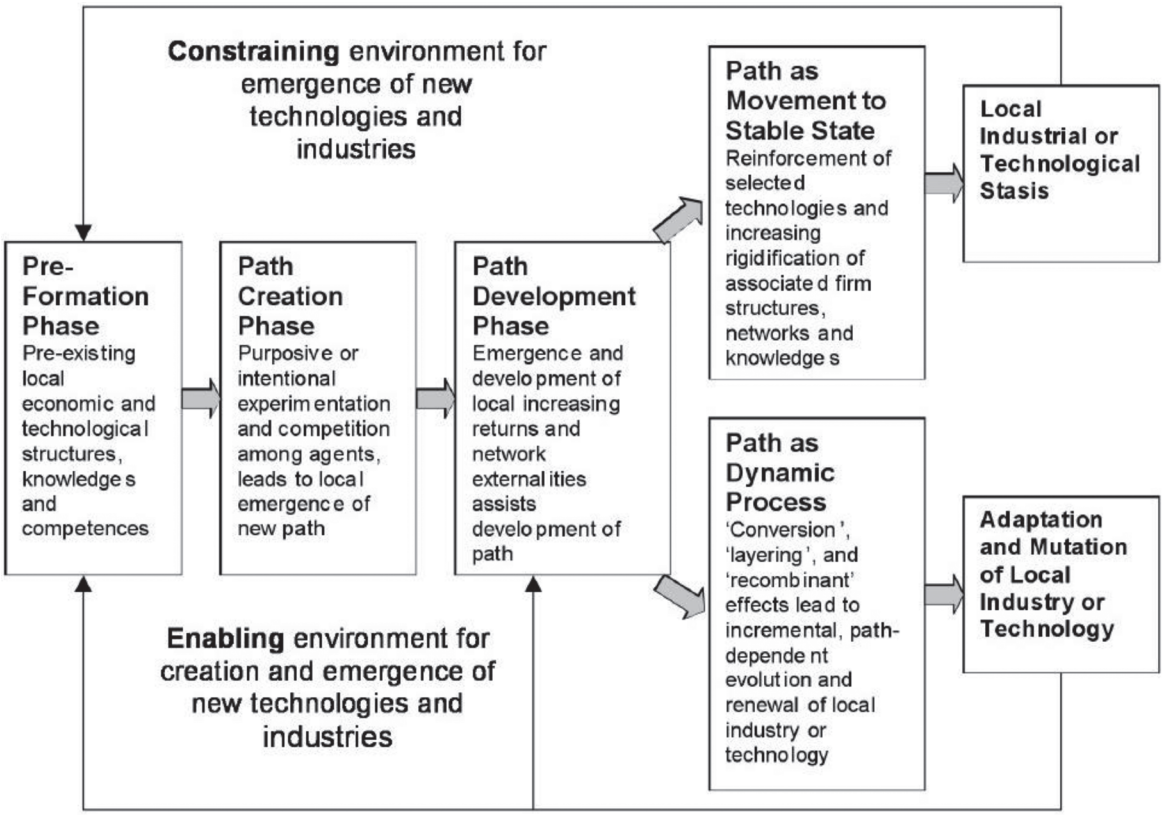

Figure 1: The "traditional" and "dynamic" models of path-dependence. Source: based on Martin 2009.

The "traditional" interpretation of path-dependence is based on the concept of lock-in. In case of functional lock-in the strong vertical dependence between corporations and their suppliers hinders the efforts of suppliers to upgrade their higher value-added functions (R&D, marketing) while the lack of these functions decreases the chances to appear on new markets especially in times of a crisis. Cognitive lock-in is a sector and region-specific narrative developed in the minds of employers and employees; the stakeholders still consider the long-term determining industry as the economic basis of the region even if the trends do not underpin the reality of this idea. Finally, political lock-in shows that institutional structures representing outdated and obsolete economic structures slow down and preserve the industrial restructuring. The institutional system includes political decision-makers, industrial trade unions, umbrella organizations, corporations as well as norms, written and unwritten rules determining the behaviour of economic actors (Grabher 1993; Schamp 2005; Hassink 2010).

In the new approach of path-dependence—more open for changes—the concept of layering conversion and recombination plays a key role. Layering refers to the changes in the composition of local firms which arise from the emergence of new actors (spin-off firms, new companies and newcomers from outside the region) and the termination or relocation of previously existing ones. Conversion means the progressive reorientation of individual economic agents towards more advanced technologies and diversified product structure. The process is mainly generated by the spill over effects of new entrants coming from outside the region, which may cause the entire change of the technological and product orientation of the local economy. It is important to note that certain dimensions of the upgrading formulated in GPN theory and the conversion related to the topic of path-dependence are equivalent definitions of the same phenomenon in different context. As the cumulative effects of layering and conversion the local network externalities standing in the background of the industry (human resources, suppliers, supporting institutions, mediating organizations) may change. Finally, recombination—as the precondition of the above mentioned processes—means the efficient redefinition of resources and competencies determining the former development trajectories, which enables the purposeful entrepreneurial deviations towards new development paths (Martin 2009 – see Figure 1.).

Since path-dependence is predominantly generated by space-specific local factors, the place-dependent interpretation of the notion is justified (Martin/Sunley 2010). The change of cost-capability ratio is an important explaining factor of the development of global production networks where knowledge accumulation forming the basis of capability enhancement is channelled externally through the production networks. Additionally, it is rooted in the local environment in the form of hardly reproducible knowledge projecting long-term development (Fuchs/Winter 2008). The object of the case study, the transformation and restructuring of the Hungarian footwear industry is about the integration of the sector into the global production networks after the change of regime and its upgrading which was facilitated by direct and indirect foreign direct investment, but was essentially based on the traditional sites of production. This fact justifies joining the concepts of global production networks and path-dependence. Although there are fundamental differences between the operational economic mechanisms before and after the change of regime (planned economy with restricted supply vs. demand-pulled market economy), such non-system-specific advantages (sector-specific technology and skills, western-oriented market relations) emerged in the socialist period partly due to the—previously mentioned—relative gradualness of the Hungarian economic transformation, which could also be utilized after the change of regime as cumulative advantages and they significantly influenced the restructuring of the industry. Therefore, the dynamic interpretation of path-dependence open for changes—which reflects a close relation with the notion of path plasticity (Strambach 2010) in the authors approach—is considered to be adaptable to research concerning the economy of post-socialist Hungary.

3 The Hungarian footwear industry within global production networks

3.1 Circumstances of integration into global production networks

The integration of the Hungarian footwear industry into global production networks is almost parallel with the internationalization efforts of the Western European and American footwear manufacturers resulting in the establishment of spatially fragmented production systems. Although socialist Hungary primarily produced for the domestic and socialist markets (mainly USSR and GDR) it did not separate from the market economies of the developed capitalist countries because the Hungarian economy was relatively open towards the west and needed foreign currency revenue. After the end of the 1960s more and more state-owned footwear manufacturers became subcontractors of western contracting partners seeking to find cheap production opportunities. The evolving Austrian, German, French, British and American relations made the channelling of significant professional skills (new technologies and products, negotiation techniques) possible into the Hungarian footwear industry together with exploiting the capacities and building the recognition of Hungarian agents in the west. The socialist period was characterized by mass production with large series (exports to the Soviet Union included tens of thousands of the same models). Hungarian shoe manufacturers having become accustomed to mass production faced the problems of organizing the smaller series but wider range of products partially during western-oriented subcontracting activities.

During the change of regime, the connection to the global production networks (by subcontracting) was a tool for survival. The shrinking of domestic market opportunities could be observed in the second part of the 1980s, which was caused by the uncontrolled cheap oriental (Chinese) competitors eclipsing the domestic producers, decreased consumption due to the transformation crisis and the accumulation of huge stockpiles appeared on the domestic market due to the bankruptcy and liquidation of the Hungarian shoe manufacturers during the recession. This process was paired with the sudden and drastic deterioration of eastern markets (mainly in the Soviet Union); during the mid-1980s one third of the Hungarian footwear industry capacity was related to the Soviet-oriented export, which completely disappeared in the years after the change of regime. To compound this problem, there was no chance to break into the western markets due to lack of capital and market skills, and quality problems in part. In addition to market problems, as a result of high inflation rate and general lack of capital, producers had to face the fact that it was impossible to finance the production and to manage the unbearable accumulated debts. Their situation was worsened by the increasing burdens of human resource management (hiring and firing). Consequently, the income and profitability of shoe manufacturers declined drastically and huge amounts of unexploited capacities (employment problems) developed. However, the interest of foreign companies towards Hungarian production did not decline for reasons of cost-efficiency, what is more it even increased because of the Yugoslavian civil war; therefore, the expansion of subcontracting offered a way out.

This segment facilitated the high-capacity manufacturers and partially compensated for the market loss; moreover, it decreased the operational risks by the financing activities (for example in case of raw material costs) of the contractors. Despite the limited opportunities for returns and the step back into the role of a simple producer, both the old companies which had been transformed and the new start-up companies oriented towards subcontracting. The opportunities of companies intending to produce exclusively their own products for the domestic market were restricted dramatically because of the structural changes of the Hungarian shoe retail and the strong expansion of Chinese, then multinational companies. At the Millennium 85-90 % of the Hungarian footwear export was related to subcontracting. The path-dependent feature of market restructuring can be witnessed in the fact that in many cases the relations based on subcontracting originating in the socialist period continued in the 1990s. Former subcontracting served as important reference to acquire new orders. The domestic connection-networks rooted in the past helped the allocation of the orders in order to efficiently utilize the capacities of the industry.

Integration into global production networks most often happens in the form of interfirm control. In the case of dominant production function the foreign contractor sends the orders to the Hungarian firms at the beginning of the production season including production plan, detailed specifications of products, technological instructions and deadlines. The contractor provides raw materials and technicians to handle any problems that might arise during the production. In the 1990s in several cases the internalization of the Hungarian relations were manifested by the privatisation of the local footwear industry and in some exceptional cases by the establishment of new firms. Organisational changes were carried out mainly on the basis of former subcontracting relations, predominantly by the mitigation of risks (uncertainties of the local suppliers) and in relation to the increasing appreciation of locations by the contractor controlling the network (See also the organizational transformation of Tisza Shoe Company displayed on Figure 2.). Several foreign companies concentrated their production into Hungarian subsidiaries. Certain supplier relations showed signs of development towards interfirm partnership. This process also assumes a more significant role of the local companies both in production and product development. There are Hungarian firms which develop and manufacture products for foreign partners who do not have shoe manufacturing background.

A multistage system has developed on top of which foreign subsidiaries and domestic subcontractors providing full range of production for foreign companies operate, while in the lower regions we can find firms supplying the above mentioned actors with certain phases of production (mainly labour-intensive upper leather production). The same firm can play different roles in the global production networks. While doing subcontracting for western contractors the firms partially outsource their labour-intensive upper leather production to domestic or foreign suppliers to reduce costs and to achieve resilient capacity exploitation. If the company develops its own products in addition to subcontracting for the purpose of diversification, then it also acts as a firm controlling the network. The explanation of the development and the growing functional complexity of footwear industry exceeding subcontracting within the framework of interfirm control can be supported by evidence collected from other East-Central European countries, especially from Poland (Roukova et al 2008).

After the Millennium the shrinking of global production networks can be observed in Hungary. The production became costly in comparison to international averages due to labour-related common public charges and a major increase in minimal wages as well as the temporary positive changes in the exchange rate between HUF and EUR. The increase in the minimal wages (e.g., minimal wages increased from 25,5 thousand Forints to 40 and then to 50 thousand Forints in Hungary for the two years 2001 and 2002) caused a hard hit on the sector providing 50-60 % of the average industrial gross wages. In lower-positioned market segments the capability enhancement did not balance the rising costs; therefore, the significant proportion of agents aiming to reduce production costs in the global competition left the market. Domestic companies acquired fewer subcontracting orders and some of the subsidiaries founded by the internalisation of relations were sold or terminated. Local corporate strategies aiming to balance out the process typically prefer a shift towards higher value-added quality subcontracting and they prefer the establishment of new independent value chains by the development of their own products. There are examples of partial retention of the terminated subsidiary activities in the framework of subcontracting (after intrafirm coordination they return back to interfirm control) but in the long run it does not appear to provide the main direction towards development.

Before the change of regime, the Hungarian footwear industry was concentrated in 11-12 multiple-site state-owned factories, industrial co-operatives and industrial branches of agricultural companies. In 1998 the Hungarian Corporate Database (Cég-Kód-Tár) registered 280 joint ventures in footwear manufacturing employing at least 5

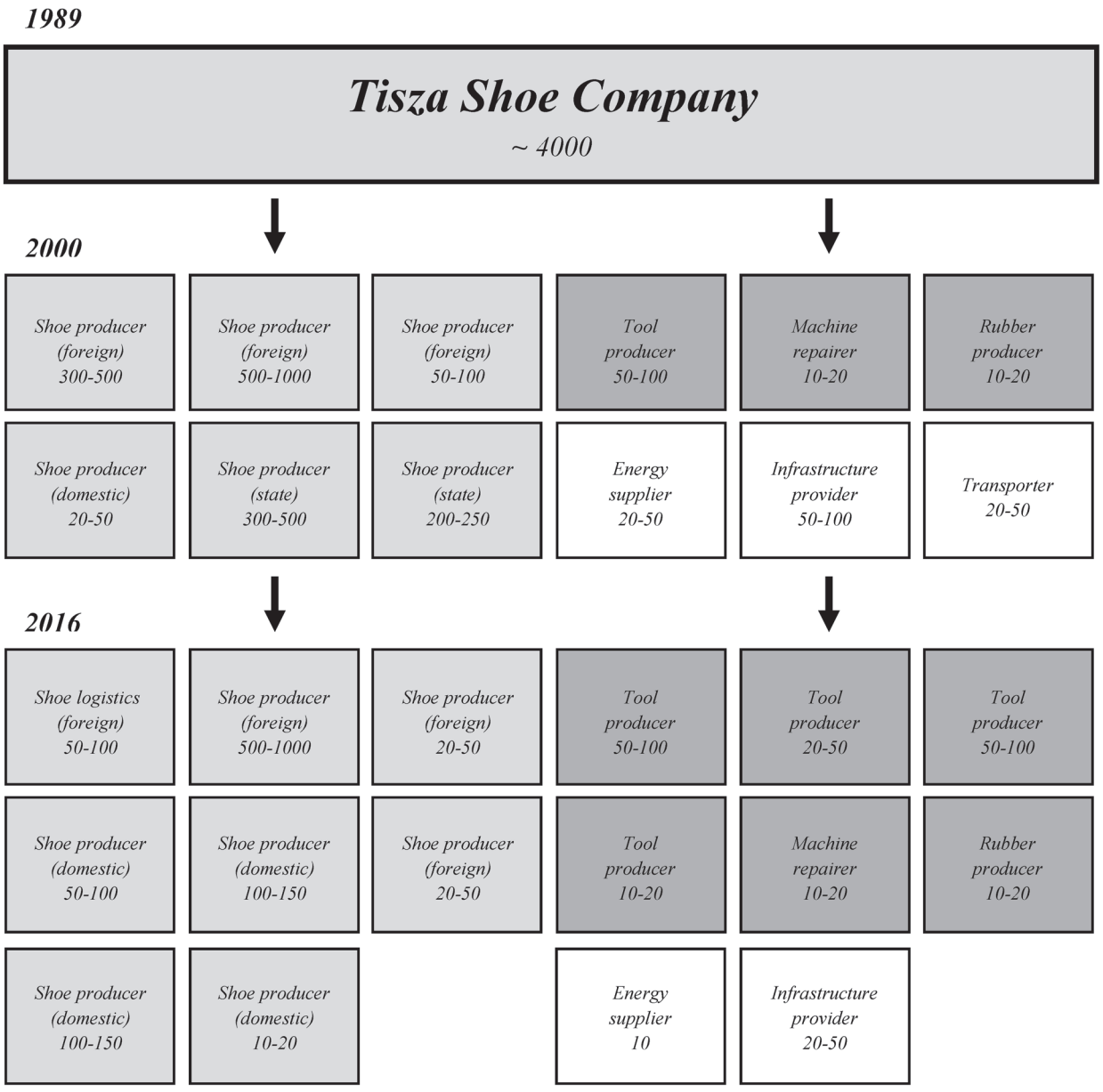

Figure 2: Organisational transformation of the Hungarian footwear industry – the case of Tisza Shoe Company (with number of employees). Source: authors' compilation.

employees, while in 2013 it contained only approximately 120 companies. The structural reorganization of the largest shoe manufacturer (Tisza Shoe Company) clearly represents the fragmentation of the corporate system with the decentralized privatization of the state-owned company and the establishment of spin-off companies by former employees in the background (see Figure 2.). Foreign investors who emerged as owners in Hungary were predominantly shoe manufacturing companies: previously the owner of the largest successor of the Tisza Shoe Company was the German Salamander, while currently the company is owned by the Austrian Lorenz Shoe Group. As a result of these layering processes firms related to shoe manufacturing and the related background supply industries—despite the remarkable shrinkage of the industry—still play an important role in the economies of some small-town-centred regions. The heritage of the socialist period is the emergence of multiple industries on the same sites as well as the spatially deconcentrated light industry based on a cheap labour force. Due to the lack of specialisation, and because of the lack of emergence and development of traditional industrial districts, there are no regions in the economy where shoe manufacturing and the related background supply industries are predominant. One sixth of

the employees of the current Hungarian footwear industry is concentrated around the former Tisza Shoe Company.

3.2 Changes in the positions within global production networks

Integration into global production networks meant a functional downgrading for the Hungarian footwear industry since with subcontracting the former existing production facilities lost significance and the importance of strategic higher value-added functions decreased. As part of rapid functional upgrading, upper leather production was followed by full range product manufacturing although in many cases the first step was skipped. Then, extra-production activities (manufacturing model shoes, large-scale production planning, storage and logistics) also appeared independently from the type of firm, whether they were the subsidiaries of the given foreign companies or subcontractors. In respect to functional upgrading the specific case of the German company which concentrated the whole range of production of its leading brand in Hungary was primarily due to several personal relations with the owner and the local CEO and seems to be an exceptional situation. The respective company actively involves its local site in product development and since the raw material supply management are located here, it organizes the production of its other brands in the surrounding countries from the Hungarian location and has given the Hungarian unit responsibility for the marketing activities in Hungary, Romania and Bulgaria. The most outstanding example of functional upgrading of domestic firms is the case of the company which develops and manufactures products for its contractor without a shoe manufacturing background. Still the constraints of functional upgrading in global production networks are typically similar to other regions (Schmitz 2006, Navas-Alemán 2011, Molnár 2013).

As the results of Brazilian, Portuguese and East-Central European case studies have demonstrated, increasing the efficiency of production is a common element of upgrading, which can be experienced both in technology and production planning. Although the technological background of the industry—in the case of several leading shoe manufacturers—went through significant development through the light industry reconstruction program of the 1970s and then with the investments of the 1980s, changes induced by the change of regime did not allow continuous technological developments; therefore the technology became considerably outdated. Remarkable investments were realized in some of the factories with foreign ownership (for example Marc, Ruggeri, Salamander, Josef Seibel) but in order to replace manual work to expand capabilities and to improve product quality several subcontractors with stable markets started development with the help of their contractors (Molnár 2013). The shrinking of the industry after the change of regime resulted in substantial extra machinery capacities which were sold by the owners to consolidate their financial situation or during the termination process. So the new entrants or companies intending to replace their old machinery could acquire second-hand machinery at relatively reasonable prices. Another frequently applied tool for increasing efficiency is the adaptation of principles of lean production to footwear manufacturing and the introduction of quality insurance systems in general.

With respect to product structure the changes are also significant. Originally the manufacturing of medium-priced products was outsourced to Hungary (and to East-Central Europe) because the cheaper footwear production was preferred in Asia even in the 1990s (Bertram 2005). The wave of outsourcing after the turn of the Millennium brought major changes in this product structure since the classical mass production methods became less and less widespread. Mainly the productions of small-series products competing primarily with their market flexibility and quality and the medium and high-priced products targeting special niche markets could stay competitive on the market. Domestic producers who were getting increasingly forced out of global production networks (by receiving fewer and fewer subcontracting orders) are trying to turn back to manufacturing their own products by building their own brands. The most remarkable strategic directions are based on those market segments where the competition of agents competing in mass production prevails to a lesser extent. These segments include medical footwear (shoes for children for correction purposes, products for diabetic and orthopaedic patients), safety and protective footwear for workers, fashion shoes for women, footwear in extreme sizes and individual precisely fitted shoes serving unique orders and needs. The changes in the product structure may correlate with the changing functions within the production networks; there is a company which became a manufacturing basis for highly prestigious products thanks to a new foreign owner, but at the same time stepped back from full range production to focus on just the stage of upper leather production. However, more and more domestic companies have acquired strategic functions by stepping into the market with their own products integrating product development, resource management and marketing activities (Molnár 2013, Molnár/Lengyel 2015, see Figure 3.).

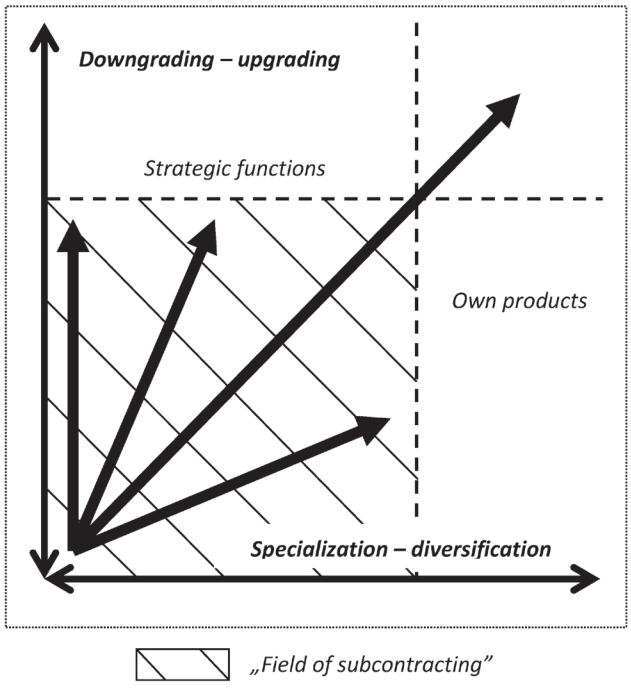

Figure 3: Changes in product structure and functions regarding the Hungarian footwear industry. Source: authors' compilation.

During integration into global production networks the geographical scope of footwear manufacturing firms' markets has been widened. The foreign subsidiaries and the "Tier-1" domestic subcontractors of foreign contractors mainly produce de facto for global markets (Molnár 2013). The restructuring process together with the deterioration after the Millennium, however, narrowed the geographical scope of markets in two dimensions. On one hand, placing quality and flexibility into the centre of competitive strategies results in the increasing appreciation of shoes produced for the European markets. Germany plays the most important role in this respect due to the size of the European markets and based on the ownership of the companies present in Hungary. On the other hand, the domestic companies establishing their own brands are trying to gain market share in Hungary hoping to break into foreign markets (mainly European countries) in the future. A special case of market expansion is represented by handmade shoe manufacturers targeting a very specific segment (in Hungary there are 5-6 enterprises producing luxury handmade shoes) with retail stores opened in prestigious neighbourhoods in Budapest frequently visited by well-to-do tourists. They follow the handcraft traditions from which the "Budapester" men's shoe model emerged.

4 Local embedment of global production networks

4.1 The role of institutions in the restructuring of the footwear industry

The openness of the GPN concept towards institutional agents and spatial aspects helps to explain the post-socialist restructuring of the Hungarian footwear industry since institutional actors operating at different spatial levels substantially determined the development of the sector. First and foremost, regarding the regulatory element of the Hungarian economic environment, the role of the state would be emphasized, which determined the mode of transformation into a market economy and the emergence of globalisation effects (Smith 2014). In line with the neoliberal economic policy and export-driven economic development model based on the import of foreign direct investments, a radical restructuring was carried out in Hungary, which also entailed significant losses (probably the process is most expressively illustrated by Hungary's employment rate, which is among the lowest figures compared to the EU-member countries even at the present time). The economic policies of the governments in power ignored the sectoral approach (Botos 2010), and light industry—not being a "strategic industry"—could not expect notable attention despite its major role in terms of employment. Although the parliament accepted a decision on the crisis management of the light industry in 2004 (parliamentary decision No. 122 of 2004 on the alleviation of the critical situation of textile and apparel, and leather and footwear industry) this decision was not followed by purposeful actions.

The state was also the owner of significant proportion of the Hungarian footwear industry at the beginning of its transformation. The main aim was to reorganize the shoe manufacturer firms, to terminate the less-cost efficient sites, to sell the viable units to private investors and to gain profit as well. As a result of this economic policy a tremendous proportion of the sector was liquidated but at the same time, in the remaining part of the Hungarian footwear industry, the largest amount of foreign capital investment was realized in the 1990s compared to East-Central European countries.

The case of Tisza Shoe Company (located in Martfű, Szolnok District), which is among the shoe manufacturers that remained state-owned for the longest time, serves an instructive example in terms of specific negotiation mechanisms influencing the restructuring of the industry (Molnár/Lengyel 2015). The state-owned asset management,

the local management as well as a parliamentary representative who lobbied for the firm—and who was formerly a senior employee of the company—played a decisive role in the transformation and privatisation of the company. Decisions of the local management were heavily influenced by the trade union: the significance of the latter was increased on the one hand by the traditions concerning trade unions inherited from the socialist period and strongly eroded after the change of regime. On the other hand, the relevance of the trade union was enhanced by the circumstance that within the Hungarian interest representation system, featured by the importance of the local level, in Martfű the trade union was organized on a spatial basis — quite uncharacteristic in Hungary— thus preventing the fragmentation of this interest representative parallel with the company. The local government was also involved in the transformation process and the subsequent life of the company. As a result of the effects generated by the above mentioned actors the restructuring and privatisation of the state-owned "giant corporation" was implemented in a way that the company maintained its operability throughout the process despite its significant deterioration, which was one of a kind among state-owned shoe manufacturer companies. These features clearly characterize the integration circumstances of Hungarian footwear industry into global production networks (and the role of institutional background) after the change of regime, since the method of restructuring largely contributed to the preservation of relevant segments of the industry in the Martfű region (the term "region" refers to the fact that activities which can be deduced from the Tisza Shoe Company are also present in the economies of the adjacent Kunszentmárton District and Mezőtúr District).

The local management elaborated the transformation concept of the company with the involvement of external experts, which involved the apportionment of the company into divisions and the privatisation and reorganisation of these divisions into subsidiaries. The decomposition was based on the products and their markets in the case of footwear manufacturing, while in the case of other functions, the range of activities determined the process based on whether the successors were viable or not. The local trade union contributed to the correct implementation of inevitable layoffs and it also supported the privatisation process by representing the interests of maintaining the major employment functions rather than generating more revenue. It can be pointed out that as a result of their purposeful tenors that the new owners (in several cases foreign owners) further employed the employees of the subsidiaries in all cases; they were committed to employment for a certain period, undertook the collective contracts (until establishing new ones) and acknowledged the working years spent at the state-owned company, which also influenced the amount of severance pay in case of an incidental layoff.

Structural changes would not alone be sufficient for maintaining business operability. The state was pressured by the local interest group arguing for the employment role of the company and its location in an underprivileged region. They managed to lobby successfully for the firm to be required to be involved with the group of 34 state-owned companies—the situations of which were resolved within the procedure of expedited debt consolidation programs. As a result, the problems concerning the financial background of operation, which previously caused the termination of several actors in the industry, were alleviated, and the smaller proportion of the prevailing debts were remitted, while the others were rescheduled. The company acquired heavy supporting capital injections several times in different forms and conditions (non-refundable subsidies, loans with preferential interest rates). It also won job preservation supports, participated in the HYFERP program of the European Union helping the reorganization and gained an ownership loan from the state-owned asset management. The revenues arising from selling the state-owned business shares, real estates and machinery remained locally providing sources for structural transformations, the repayment of debts and the elimination of the inherited environmental damage.

After the change of regime the local government got in touch with the shoe company through the acquisition of educational, healthcare and cultural institutions which were previously maintained by the company (it is worth mentioning that a significant part of the local institutions and infrastructure was formerly maintained by the Tisza Shoe Company). In line with the concept of the footwear industry which represents an important economic pillar in local economic development ideas, the local government lobbied for the retention of local jobs in shoe manufacturing or the settlement of industry-related enterprises, what is more it contributed to the restart of the traditional local footwear industry-related vocational training in 2012 after a temporary pause. The recognition of the significance of the footwear industry in Martfű by emphasizing its future roles is considered to be exceptional in Hungary. In the case of many small towns facing similar problems concerning shoe manufacturing, the sector is not even being mentioned among the future economic prospects.

4.2 The role of local knowledge and skills in the restructuring of footwear industry

After the change of regime the Hungarian footwear industry was regressed to a few key regions (see Figure 4.). At the same time the relative appreciation of peripheral regions offering cost advantages and long-term accumulated industrial knowledge and skills can be observed (Molnár/Lengyel 2015). This result is parallel with the idea of GPN theory emphasizing the importance of industry-specific endowments—e.g., concentration of sector-specific knowledge, skills, and expertise (economies of scale), and the possibility of cooperation and learning from each other (economies of scope)—rooted in the local environment (Coe/Hess 2011).

The prosperity of the large-scale Hungarian footwear production after World War II was grounded by the parallel establishment of related educational institutions. Similarly, as with the other segments of light industry, Budapest was the most remarkable centre of education for the footwear industry, but any higher level training was missing for a long time in Hungary. The senior managers of shoe manufacturers having a university degree were trained in two ways: (1) a full year of undergraduate textile industry mechanical engineering students of the Budapest University of Technology were redirected to the footwear industry, and (2) experts were trained through foreign scholarship programs in the USSR and GDR (leather industry mechanical engineering based on a chemical engineering major and footwear industry technician based on a mechanical engineering major). In 1972 the Light Industry Technical College was established in Budapest where the leather industry engineering university course was launched in line with the demands of footwear manufacturing.

Large shoe manufacturer companies became strongholds of industry-related knowledge and skills (for example Duna / Quality Shoe Companies – Budapest; Savaria Shoe Company – Szombathely; shoe companies of Bonyhád and Szigetvár; Szabolcs Shoe Company – Nyíregyháza). The Tisza Shoe Company in Martfű stood out from these companies due to its size, technological complexity and its most comprehensive sector-related verticality. The factory was founded by the Czech Bata company during World War II with the intention to enter the Hungarian market. Bata also established local vocational training in 1944 to fulfil the employment demands of the company. From 1964-65 vocational secondary education and from 1985 a technical school functioned in Martfű. The educational institution became undoubtedly the most important centre of footwear industry-related secondary education due to its nationwide enrolment (providing labour supplies for other shoe companies) and quality parameters of education partly based on the training workshops within Tisza Shoe Company.

Difficulties of school enrolment in less attractive shoe manufacturing-related professions can be witnessed even from the 1970s (however, in families working in the leather and footwear industry ties to these professions often descended from generation to generation), but the major deterioration was caused by the decline of the industry after the change of regime. The Hungarian vocational training was strongly narrowed (after the Millennium the related vocational training was also suspended in Martfű) and the higher educational background was reorganized. Due to the lack of labour supplies balancing out the ageing generations of professionals, and despite the significant retrogression of the industry, lack of quality labour can be observed in the sector, which is not only indicated by the notable re-employment of pensioners but also by the serious efforts carried out in recent years in several locations such as Martfű to restart vocational training. It is of major importance to consider the issue of whether this process of losing industry-related knowledge is reversible or whether we have to accept the fact that the disappearance of these skills (which are also substantial at a European level) is just a question of time.

Background supply industries representing a specific segment of industry-related knowledge were not so strong in Hungary even in the socialist period. Quality complaints arose related to Hungarian leather manufacturing and the remarkable sole and tool manufacturing was typically integrated into the organizational structures of large shoe companies (the major shoe companies were also engaged in the manufacturing of machinery parts). The only notable light industry machinery manufacturer company (KAEV) produced principally cutting machines (the production was started on the basis of German Schön license, which was followed by Hungarian product development). Hungarian shoe companies were mainly equipped with Czechoslovakian, German and Italian machinery. A footwear industry-related industrial centre similar to Western-European industrial districts integrating actors of background supply industries in a comprehensive way has never emerged in Hungary, but Martfű performing the largest production became an outstanding location in terms of its verticality.

On one hand the largest Hungarian sole manufacturing factory was located in Martfű, which provided products for other shoe companies as well. On the other hand, Tisza Shoe Company was the strongest basis of footwear industry-related tool manufacturing, manufacturing of machinery parts and machine reparation. During its

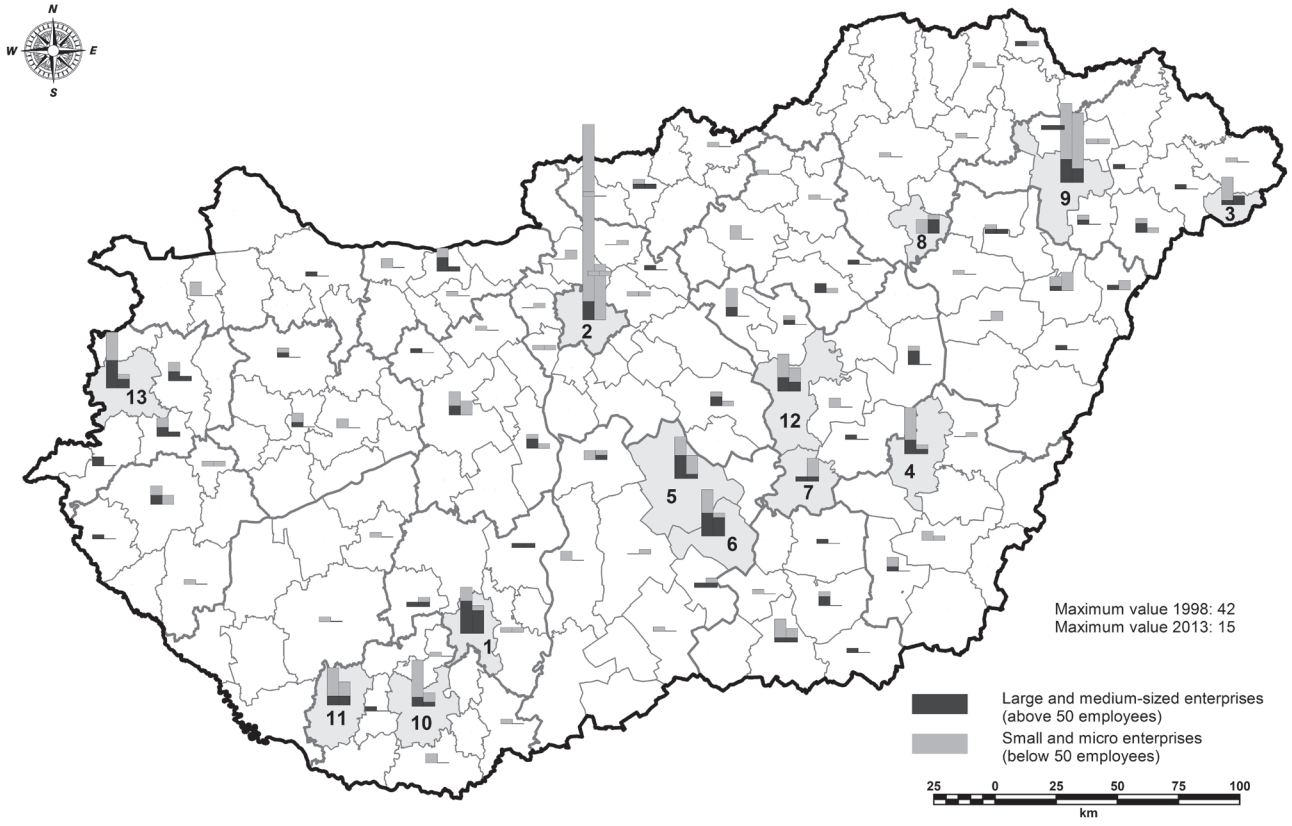

Figure 4: Enterprises of the Hungarian footwear industry (1998, 2013). Source: based on the data of the Hungarian Central Statistical Office, edited by Németh, G. 1. Bonyhád, 2. Budapest, 3. Csenger, 4. Gyomaendrőd, 5. Kecskemét, 6. Kiskunfélegyháza, 7. Kunszentmárton, 8. Mezőcsát, 9. Nyíregyháza, 10. Pécs, 11. Szigetvár, 12. Szolnok, 13. Szombathely.

transformation these activities were continued within the framework of privatised successors or independent spin-off companies established by former senior managers of the firm. The main development direction of the background supply industries —similarly to the example of the German Pirmasens (Schamp 2005)— is towards market diversification and changes between global production networks. The market for the shrinking footwear industry is getting smaller and smaller, its technological background is changing, moreover, the foreign companies settled in the region often brought and maintained their well-established relation networks.

The factory producing a mixture of rubber was established as a spin-off enterprise and it is considered to be the successor of the former rubber and sole manufacturing company. Nowadays it produces raw materials for technical rubber products selling 80 % of its items to the transportation sector. The tool manufacturers—based on convertible technological competencies—are targeting new segments (paper and printing industries, manufacture of household appliances, automotive industry). One of the two significant tool manufacturing companies in Martfű is the most remarkable cutting knife supplier of the shoe companies in Hungary (and also leather companies supplying the automotive industry). The other one is—in addition to its surviving tool manufacturing profile—now among the world's largest companies producing bookbinding machinery. During the transformation of the successor company engaged in manufacturing machinery parts and machine reparation, the main driver was to enter into new markets (it cooperated with a smelter and companies producing agricultural machines and automotive suppliers) but the firm was terminated later on. However, a company which was founded as a spin-off enterprise in the 1990s still operates currently as the most important industrial actor with a nationwide client base in the field of reparation of footwear industry-related machinery. These examples clearly indicate the importance of existing technological bases and the recombination of traditional industrial knowledge and skills with new elements which contribute to the path-dependent repositioning of the respective industrial actors (see Figure 5.).

Background supply industries could not serve as significant location factors due to their relatively underde-

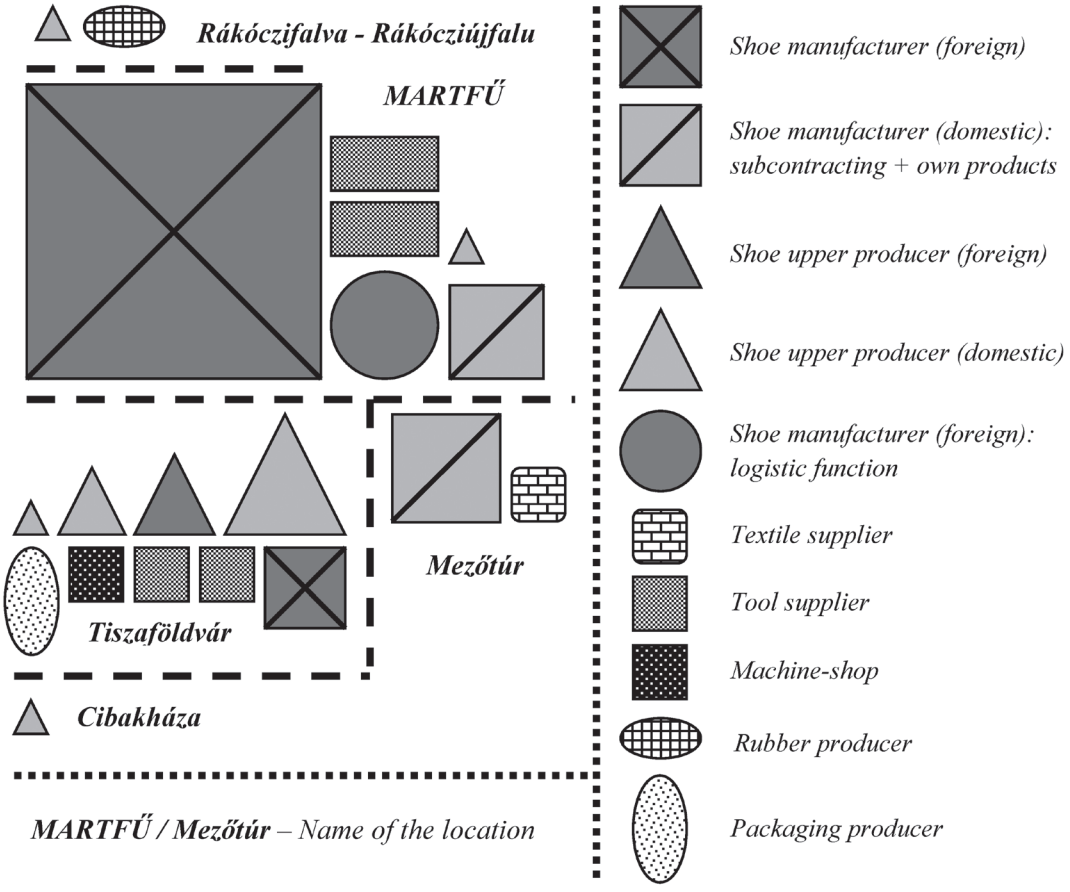

Figure 5: Shoe manufacturers and actors of the background supply industries in the Martfű region. Source: authors' compilation.

veloped characteristics. The connection of the footwear industry into global production networks also contributed to their deterioration since not only the distribution of the products but also the raw material supplies of shoe manufacturers became global. In the surviving segments of these industries foreign companies which appeared in Hungary also take the advantage of employing local suppliers (manufacture and reparation of cutting knives, production of tools for sole manufacturing, machinery reparation and maintenance).

5 Conclusions

The integration of Hungarian footwear industry into global production networks could be observed even before the change of regime in conjunction with the west-oriented relative openness of the local representatives of socialist economy. Despite its disadvantages, during the change of regime integration into global production networks by subcontracting became a decisive tool for survival among the actors of the footwear industry (East-Central Europe as a whole was characterized by this process). Despite the traditional relations often covering several decades and the upgrading witnessed in the international division of labour, mass production is leaving the region which goes hand in hand with the spectacular shrinkage of the weight and employment role of the footwear industry. Small-series flexible production targeting higher quality segments, manufacture of products for special niche markets and Hungarian brand establishment represent the long-term perspectives of footwear industry in the region.

The industry-related knowledge and skills—which have a stronger basis in Hungary (similarly to other countries of the region) than in most of the newly industrializing countries—play a crucial role in terms of integration into global production networks, upgrading as well as in the success of strategies based on own products. These hardly reproducible industry-related competencies rooted in the past are concentrated in geographically well-defined regions where one can hardly talk about industrial districts due to the weakness of local horizontal and ver-

tical relation systems and the underdeveloped nature of institutional background. Since after the change of regime rather the depletion of existing knowledge and skills than the reproduction of them was typical, similarly to other Western-European countries Hungary also has to face with the danger of irreversible loss in knowledge and skills: it is a huge and unresolved issue whether there is a chance of salvaging them in the long run.

Effects of the key mechanisms of path-dependence (technological background, positive externalities and institutional hysteresis) can be experienced in the restructuring of the Hungarian footwear industry. On the one hand, the means of integration into global production networks was strongly affected by the traditions of past activities in footwear manufacturing, the industrial background (knowledge and skills) and the relations accumulated before the change of regime (which was partly utilized by spin-off firms in the vicinity of old industrial sites) as well as by the operation of institutional actors rooted in the local environment. On the other hand, the means of integration into global production networks also had feedback effects on the emergence of mechanisms of path-dependence. At the same time, due to the lack of highly specialized industrial districts the authors reject the validity of traditional lock-in-focused approach of the notion of path-dependence in this respect. The layering and conversion of the footwear industry, the successful steps of suppliers towards diversification as well as the phenomenon that representatives of leather manufacturers supplying the automotive industry (representing an upswing after the Millennium) settling into former shoe manufacturer regions imply that certain elements of knowledge related to the industry can serve as starting-points of new development paths – through their recombination with new skills and competencies—not only in the footwear industry but also in related industries.

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References

Barta, Gy. (2002): A magyar ipar területi folyamatai 1945-2000. Dialóg Campus, Budapest / Pécs. *(Regional Processes of Hungarian Industry 1945-2000)*

Bertram, H. (2005): Das Wandern der Schuhindustrie innerhalb Europas. In: Geographische Rundschau, (57) 12, 46–53.

Botos, B. (2010): Az iparpolitika metamorfózisa. L'Harmattan, Budapest. *(Metamorphosis of industrial policy)*

Coe, N. M. / Hess, M. / Yeung, H. W. / Dicken, P. / Henderson, J. (2004): „Globalizing" regional development: a global production network perspective. In: Transactions of the Institute of British Geographers (29) 4, 468-484.

Coe, N.M. / Hess, M. (2011): Local and regional development. A global production network approach. In: Pike, A. / Rodríguez-Pose, A. / Tomaney, J. (eds.): Handbook of Local and Regional Development. Routledge, London / New York, 128–138.

Crestanello, P. / Tattara, G. (2011): Industrial Clusters and the Governance of the Global Value Chain: The Romania-Veneto Network in Footwear and Clothing. In: Regional Studies (45) 2, 187-203.

Cseh, J. / Farkas, J. / Geiger, T. / Várszegi, Á. (2002): Könnyűipari ágazatok az Európai Unióban és Magyarországon: textil-, ruházati, bőr- és cipőipar. Magyar Kereskedelmi és Iparkamara, Budapest. *(Segments of light industry in the European Union and Hungary: textile-, clothing-, leather- and footwear industry)*

Cutrini, E. (2011): Moving Eastwards while Remaining Embedded: the Case of the Marche Footwear District, Italy. In: European Planning Studies (19) 6, 991-1019.

Dicken, P. (2011): Global Shift. Mapping the Changing Contours of the World Economy. Sage, Los Angeles / London / New Delhi / Singapore / Washington D.C.

Fuchs, M. / Winter, J. (2008): Competencies in subsidiaries of multinational companies. The case of the automotive supply industry in Poland. In: Zeitschrift für Wirtschaftsgeographie (52) 4, 209-220.

Gereffi, G. / Humphrey, J. / Sturgeon, T. (2005): The governance of global value chains. In: Review of International Political Economy (12) 1, 78-104.

Grabher, G. (1993): The weakness of strong ties; the lock-in of regional development in the Ruhr-area. In: Gabher, G. (ed.): The Embedded Firm: On the Socioeconomics of Industrial Networks. Routledge, London / New York, 255-277.

Hamar, J. (2006): Válságtól válságig? A magyar textil- és ruházati ipar helyzete és kilátásai. In: Külgazdaság (50) 6, 44-70. *(From crisis to crisis? The position and prospects of Hungarian textile and clothing industry)*

Hanzl-Weiß, D. (2004): Enlargement and the Textiles, Clothing and Footwear Industry. In: World Economy (27) 6, 923-945.

Hassink, R. (2010): Locked in decline? On the role of regional lock-ins in old industrial areas. In: Boschma, R. / Martin, R. (eds.): The Handbook of Evolutionary Economic Geography. Edward Elgar, Cheltenham / Northampton, 450-468.

Humphrey, J. / Schmitz, H. (2002): How does insertion in global value chains affect upgrading in industrial clusters? In: Regional Studies (36) 9, 1017-1027.

Kaplinsky, R. (2004): Spreading the Gains from Globalization. What Can Be Learned from Value-Chain Analysis? In: Problems of Economic Transition (47) 2, 74-115.

Kornai, J. (1995): Négy jellegzetesség. A magyar fejlődés politikai gazdaságtani megközelítésben. Első rész. In: Közgazdasági Szemle (42) 12, 1097-1117. *(Four characteristic features. Development in Hungary from the aspect of political economy. First Part.)*

Kornai, J. (1996): Négy jellegzetesség. A magyar fejlődés politikai gazdaságtani megközelítésben. Második rész. In: Közgazdasági Szemle (43) 1, 1-29. *(Four characteristic features.*

Development in Hungary from the aspect of political economy. Second Part.)

Laki, M. (2005): A magyar cipőpiac átalakulása 1989 után, avagy a gyenge pozitív visszacsatolás esete. In: Bőr- és cipőtechnika, -piac (55) 6-7, 191-205. *(Transformation of the Hungarian footwear market after 1989 – the case of weak positive feedback mechanism)*

Martin, R. (2009): Rethinking Regional Path Dependence: Beyond Lock-in to Evolution. Papers in Evolutionary Economic Geography. Utrecht University.

Martin, R. / Sunley, P. (2006): Path dependence and regional economic evolution. In: Journal of Economic Geography (6) 4, 395-437.

Martin, R. / Sunley, P. (2010): The place of path dependence in an evolutionary perspective on the economic landscape. In: Boschma, R. / Martin, R. (eds.): The Handbook of Evolutionary Economic Geography. Edward Elgar, Cheltenham / Northampton, 62-92.

Molnár, E. (2013): Egy zsugorodó iparág újrapozícionálásának kérdőjelei: Magyarország cipőgyártása a rendszerváltás után. In: Tér és Társadalom (27) 4, 95-113. *(A declining economic sector's new positioning: Hungary's footwear industry after the change of the political system)*

Molnár, E. / Lengyel, I. M. (2015): Understanding the changing geography of labour-intensiv industries from a GPN perspective: case study of the Hungarian leather and footwear sector. In: Regional Statistics (5) 2, 144-160.

Navas-Alemán, L. (2011): The Impact of Operating in Multiple Value Chains for Upgrading: The Case of the Brazilian Furniture and Footwear Industries. In: World Development (39) 8, 1386-1397.

Roukova, P. / Keremidchiev, S. / Ilieva, M. / Evgeniev, E. (2008): Footwear Industry: Delocalisation and Europeanisation. In: Labrianidis, L. (ed.): The Moving Frontier: The Changing Geography of Production in Labour Intensive Industries. Ashgate, Aldershot, 205-227.

Schamp, E. W. (2005): Decline of the district, renewal of firms: an evolutionary approach to footwear production in the Pirmasens area, Germany. In: Environment and Planning A (37) 4, 617-634.

Schamp, E. W. (2008): Globale Wertschöpfungsketten. Umbau von Nord-Süd-Beziehungen in der Weltwirtschaft. In: Geographische Rundschau (60) 9, 4-11.

Schmitz, H. (2006): Learning and Earning in Global Garment and Footwear Chains. In: The European Journal of Development Research (18) 4, 546-571.

Scott, A. J. (2006): The Changing Global Geography of Low-Technology, Labour-Intensive Industry: Clothing, Footwear and Furniture. In: World Development (34) 9, 1517-1536.

Smith, A. / Pickles, J. / Buček, M. / Pástor, R. / Begg, B. (2014): The political economy of global production networks: regional industrial change and differential upgrading in the East European clothing industry. In: Journal of Economic Geography (14) 6, 1023-1051.

Strambach, S. (2010): Path dependence and path plasticity: the co-evolution of institutions and innovation – the German customized business software industry. In: Boschma, R. / Martin, R. (eds.): The Handbook of Evolutionary Economic Geography. Edward Elgar, Cheltenham / Northampton, 406-431.

World Footwear Yearbook 2015. APICCAPS, Porto, Portugal.

Yeung, H. W. / Coe, N. M. (2015): Toward a Dynamic Theory of Global Production Networks. In: Economic Geography (91) 1, 29–58.